

REMARKS

An Office Action was mailed on January 28, 2003. Claims 1-12 and 14-21 are pending in the present application.

CHANGE OF CORRESPONDENCE INFORMATION

Applicant is submitting herewith a Sub-Power of Attorney and Change of Correspondence form. All future correspondence in this matter should be directed to Customer Number 026304 at Katten Muchin Zavis Rosenman, 575 Madison Avenue, New York, New York, 10022-2585, Phone: (212) 940-8800, Fax: (212) 940-8776. The attorney docket number has also changed to 3094/FLK (032878-87728), and it is respectfully requested that the Examiner update such information in the PALM system.

Applicants are submitting herewith a Request for Continued Examination (RCE) and an Amendment. Applicants have amended the claims to more particularly define the invention taking into consideration the outstanding Official Action.

The present invention discloses a method for controlling temperatures during the manufacturing a semiconductor. More specifically, the method of the present invention, especially described in amended claim 1 and newly added claim 23, comprises a step for determining a power ratio to be used for controlling temperatures of the susceptor and semiconductor substrate mounted thereon and a step for controlling the temperatures by performing power control on the heating sources based on at least one set of power ratios obtained in the determining step by using one or more temperature sensors, wherein the number

of temperature sensors used in the determining step is greater than the number of temperature sensors used in the controlling step. By determining the power ratios with a number of temperature sensors previously and controlling the temperature for actual manufacturing with small number of temperature sensor, the method of the present invention can control the temperatures of the reaction chamber without measuring temperatures at various regions of the wafer. As the Examiner pointed out during the telephone interview of April 22, 2003 and as evidence in the Interview Summary of the same date, this inventive feature of the present invention is not taught or suggested in Anderson or the other cited references.

Accordingly it is respectfully submitted that amended claim 1 and newly added claim 23 define patentable inventions over the prior art, including Anderson, and is, therefore, allowable.

And also, amended claim 2 and newly added claim 24 specify that a plurality of power ratios corresponding to different temperatures are set and used for controlling a temperature of the wafer and susceptor during the manufacturing process. The Examiner specifies that Anderson discloses the detecting and heating of central portions and peripheral portions of the wafer independently (col. 7, lines 11-24 and 33-37). However the plural temperatures of the disclosure made by Anderson are not the same type as that of the present invention. While the plural temperatures of Anderson have spatial temperature difference depending on corresponding portions of the wafer, the plural temperatures of the present invention further have temporal temperature difference on a manufacturing process. In other words, the temperature difference disclosed in Anderson occurs between upper-inner, upper-outer, lower-inner and lower-outer temperature control zones. On the contrary, the temperatures of the present invention are set by not only temperature control zones but also time elapsing of manufacturing and used for

determining the power ratios afterward. Anderson is totally silent about the plural temperatures varying as time elapses recited in amended claim 2 and newly added claim 24.

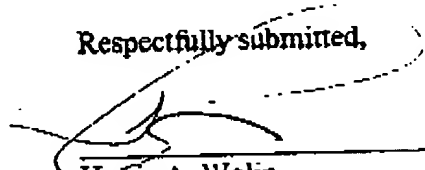
Accordingly it is respectfully submitted that amended claim 2 and newly added claim 24 define patentable inventions over the prior art, including Anderson, and is, therefore, allowable.

With regard to all claims not specifically mentioned, it is submitted that these are patentable not only by virtue of their dependency on their respective base claims and any intervening claims, but also for the totality of features recited therein.

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1-11, 15-17 and 22-27, consisting of independent claims 1 and 23 and the claims dependent therefrom, are in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, she is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fees due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,


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